UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,210	10/28/2003	Pankaj Mehra	200309399-1	4503

22879 7590 12/31/2007	EXAMINER
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400	SEYE, ABDOU K

ART UNIT	PAPER NUMBER
2194	

NOTIFICATION DATE	DELIVERY MODE
12/31/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

PTOL-90A (Rev. 04/07)

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on October 15, 2007 has been received and entered. The

amendment amended Claims 1, 11 and 21.The currently pending claims considered

below are Claims 1-32.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

b) The invention was patented or described in a printed publication in this or a foreign
country or in public use or on sale in this country, more than one year prior to the date of
application for patent in the United States.

3. Claims 1-5, 11-15, 21-22 and 25-32 are rejected under 35 U.S.C. 102(b) as being

anticipated by **Hardwick, et al. (US 5550816).**

Claims 1, 11 and 21 <u>Hardwick</u> teaches an electronic system, product and method,

comprising:

a processor (col. 37, lines 25-27);

a network interface controller including a hardware port (FIG. 18; col. 32, lines 11-14

);

a virtual switch implemented in software executed by said processor and including

a plurality of software-implemented virtual ports, said virtual ports adapted to provide

communication between an application running on said processor and said network

interface controller (FIG. 22, col. 37, lines 10-35); and

an application programming interface ("API") running on said processor and usable

by said application to interface with said virtual switch (FIG. 22; col. 37, lines 64-67).

Claim 2, <u>Hardwick</u> teaches,

wherein said API includes code that permits an application to register itself with the

virtual switch to permit a resource to be assigned to said application (col. 38, lines 4-

10; applications registering).

Claim 3, <u>Hardwick</u> teaches,

wherein said API includes code that permits an application to register itself with the

virtual switch to permit a unique identifier to be assigned to said application (col. 37,

lines 50-67 and col. 38, lines 1-10)

Claim 4, <u>Hardwick</u> teaches,

wherein said API further includes code to deregister said application from virtual switch

to release a resource that has been assigned for use by said application (col. 37, lines

50-63; protocol deregistration).

Claim 5, <u>Hardwick</u> teaches,

wherein said API includes code to permit said application to transmit data through said

virtual switch to another application (FIG. 2 ,col. 37, lines 50-63).

As per claims 12-15, 22 and 25-32, they are rejected for the same reasons

as the claims above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all

obvious rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the subject matter as a whole would
have been obvious at the time the invention was made to a person having ordinary skill in the
art to which said subject matter pertains. Patentability shall not be negatived by the manner
in which the invention was made.

5. Claims 6-10, 16-20 and 23-24, are rejected under 35 U.S.C. 103 (a) as being

unpatentable over **Hardwick, et al. (US 5550816)** in view of <u>Carollo et al</u>

(2004/0267866)

Claims 6-10, <u>Hardwick</u> teaches, an electronic system, product and method as in claim

1, 11 and 22 above but, he does not explicitly disclose, wherein said API includes

code to cause said virtual switch to open a handle and to post a receive buffer on said

handle; wherein said code that causes the virtual switch to open a handle and post a

receive also includes code to transition said handle between a first state and a second

state, said first state indicates that the switch has not received data to be provided to

said application and said second state indicates that the virtual switch has received

data to be provided to said application; wherein said API also includes code for closing

said handle ; wherein said API includes to permit the application to inform the virtual

switch that the application is ready to receive data. However, in the same field of

endeavor <u>Carollo</u> discloses communication of two applications using a virtual switch;

and virtual switch manager which manage data placed into an input buffer; and

signals sent to the virtual switch manager that data is available for the virtual switch

and ready to be received by an other application; and I/O interrupt signals (FIG. 6,

paragraph 38). It would have been obvious to a person of ordinary skill in the art at the

time the invention was made to modify <u>Hardwick's</u> invention with <u>Carollo's</u> invention to

have a virtual switch with a handle that would manage data in buffer transferred to a

receiving application in order to provide an improved technique for IP communication

between applications. One would have been motivated to use virtual switch for

communication among applications in order to provide address resolution protocol

(Carollo ; paragraph 20). Therefore to ensure that valid address are provided for

improving communication.

As per claims 16-20, 23-24, they are rejected for the same reasons as the claims
above.

Response to Arguments

6.   Applicant's arguments filed on October 15, 2007 have been fully considered but they are

not persuasive.

As to claim 1:

        a. Claim 1: In response to applicant's argument that " Hardwick clearly does not

teach or suggest a virtual switch that is "implemented in software" ". The examiner

disagrees, because of Hardwick 's teaching in (FIG. 22; col. 37, lines 25-35) of a

VirtualRouterProcess class. This claimed element of Hardwick's reference meets the

claimed limitation of the claim. Examiner has cited particular columns and line numbers

and/or figures in the references as applied to the claims for the convenience of the

applicant. Applicant is reminded that rejections are based on references as a whole

and not just the cited passages. Although the specified citations are representative of

the teachings in the art and are applied to the specific limitations within the individual

claim, other passages and figures may apply as well. It is respectfully requested from

the applicant, in preparing the responses, to fully consider the references in entirety as

potentially teaching all or part of the claimed invention, as well as the context of the

passage as taught by the cited art or disclosed by the examiner.

    b. Claim 16: In response to applicant's argument that "Applicants have reviewed

these descriptions and find no mention whatsoever of an API that is usable to interface

with the virtual switches of Hardwick" . The examiner disagrees, because of Hardwick 's

teaching in (FIG. 22; col. 37, lines 64-65) of a "media application interface" that

interfaces with the virtual router . This claimed element of Hardwick's reference meets

the claimed limitation of the claim. Applicant is reminded that rejections are based on

references as a whole and not just the cited passages. Although the specified citations

are representative of the teachings in the art and are applied to the specific limitations

within the individual claim, other passages and figures may apply as well. It is

respectfully requested from the applicant, in preparing the responses, to fully consider

the references in entirety as potentially teaching all or part of the claimed invention, as

well as the context of the passage as taught by the cited art or disclosed by the

examiner.

    c. As for the remaiming claims: see response to examiner's argument/ rejections

above.

Conclusion

7.**THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until

after the end of the THREE-MONTH shortened statutory period, then the shortened statutory

period will expire on the date the advisory action is mailed, and any extension fee pursuant to

37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of

this final action.

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to <u>Abdou Seye</u> whose telephone number is <u>(571)</u>

<u>270-1062</u>. The examiner can normally be reached on <u>Mon - Fri, 7:30am - 4pm</u>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on 571-272-3718. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

AKS
December 17, 2007

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER